

**GULF OF MEXICO ALLIANCE INDEX OF ACTIONS  
NOT FOR CIRCULATION**

Ref No.	GOAL/ACTION #	ACTION DESCRIPTION	COMPLETION DATE	RESPONSIBILITY		COMMITMENT			NOAA COMMENT	GoMex FDMG
				LEAD	CONTRIBUTOR	YES	POSSIBLE	NO		
	<b>NUTRIENT REDUCTION</b>									
1	NR1.1.1	Form nutrient criteria task force	March-06							
2	NR1.1.2	Convene technical workshop on nutrient criteria	August-06							
3	NR1.2.1	Disseminate lessons learned information from Northern Gulf Pilot Project	March-06							
4	NR1.2.2	Complete Northern Gulf Pilot Project	August-06							
5	NR1.2.3	Identify estuaries to apply methods of Northern Gulf pilot project	October-06							
6	NR1.3.1	Identify causal and response variables	September-06							
7	NR1.3.2	Compile federal, state and local nutrient databases for estuaries	December-07							
8	NR1.3.3	Establish centralized access to GOM nutrient data	September-08							
9	NR 1.3.4	Identify significant gaps in data requires to develop nutrient criteria	June-08							
10	NR1.3.5	Provide leadership in developing recommendations for realigning critical monitoring networks to address data gaps and avoid duplication	September-08							
11	NR1.4	Provide modeling assistance								
12	NR1.4.1	Develop an inventory of modeling needs								
13	NR1.4.2	Discuss applicability of models developed through the LCA Program to a future meeting of the LMRSBC								
14	NR2.1	Identify coastal watersheds where there are documented problems and a high likelihood of successful restoration of uses.								
15	NR2.1.1	Identify significant nutrient impacts to targeted coastal watersheds	January-07							
16	NR2.2.1	Complete basin plans and disseminate information on targeted coastal watersheds	January-07							
17	NR2.2.2	Lead an effort to identify complementary activities and resources available through the Hypoxia Action Plan, NEP CCMPs, Farm Bill, and Ag producer-led initiatives and other federal programs	January-07							
18	NR2.2.3	Identify opportunities where land acquisition, conservation easements, wetlands protection, restoration and mitigation can occur to improve water quality through nutrient load reductions in targeted coastal	January-07							
19	NR2.3	Evaluate effectiveness of nutrient reduction activities in targeted coastal watersheds.	November-10							
20	NR2.3.1	Track changes in nutrient loadings, concentrations and recreational and fishing uses in targeted coastal watersheds.								
21	NR2.3.2	Report to Nutrient Criteria Task Force on effectiveness of nutrient reduction activities in targeted coastal watersheds.								
22	NR3.1.1	Host Lower Mississippi river Sub-basin symposium	March-06							
23	NR3.1.2	Host a symposium on the science of Gulf hypoxia	May-06							
24	NR3.1.3	Provide information on point source and non-point source loadings to the MS River Basin and information on management action to the Hypoxia Task Force	September-08							
25	NR3.2.1	Present comprehensive Gulf nutrient monitoring program needs to the National Water Quality Monitoring Design Team								

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26	NR3.3.1	Inventory federal agencies with GIS and land use tools and capabilities that are available to states for water quality planning	September-06							
27	NR3.3.2	Map populations served by advanced wastewater treatment	December-07							
	<b>WATER QUALITY</b>									
28	WQ1.1.1	Host workshop on Pathogen Indicators	December-06							
29	WQ1.2.1	Implement monitoring of human pathogens including <i>Vibrio</i> and viruses in Gulf recreational and shell fishing waters	January-08							
30	WQ1.2.2	Conduct studies at recreational and shellfish growing waters to determine correlation between indicators and pathogens.								
31	WQ1.2.3	Conduct a targeted study to establish links between waste sources and contamination of recreational and shell fishing waters.	September-08							
32	WQ1.2.4	Encourage federal funding for a National Indicator Study								
33	WQ1.2.5	Evaluate additional indicators such as caffeine, optical brighteners, etc.								
34	WQ1.2.6	Reconsider beach water quality standards to assure most appropriate standards are being used for warmer coastal waters in the Gulf								
35	WQ1.2.7	Study the viability of key indicator bacteria in both water and sediment.								
36	WQ1.2.8	Conduct epidemiological studies of fecal contamination (various sources) to determine relative illness risks.								
37	WQ1.2.9	Implement real-time monitoring for actual pathogens in recreational waters.								
38	WQ1.2.10	Increase the flexibility of BEACH funding to allow pollution source tracking and remediation of impaired beaches.								
39	WQ1.2.11	Ensure all labs produce comparable results for bacterial analysis in turbid water.								
40	WQ1.3.1	Conduct a bacterial source tracking validation study.								
41	WQ1.3.2	Develop BST methods comparison for regional marine and estuarine waters								
42	WQ1.3.3	Provide incentives to move BST methods from research to standardized applications.								
43	WQ1.3.4	Fund collaborative studies on development and testing of near real-time analyses and other emerging bioassays.								
44	WQ1.3.5	Develop rapid (non-library-based) BST methods to identify anthropogenic sources of pollution.								
45	WQ1.3.6	Establish appropriate response protocols for human vs. animal sources of pollution at recreational waters								
46	WQ1.3.7	Conduct a comprehensive fecal coliform BST study in selected shellfish harvesting locations.								
47	WQ1.4.1	Devote adequate funding at all governmental levels to correct failing on-site sewage disposal systems, old waste water collection systems and inadequate stormwater systems.								
48	WQ1.4.2	Update stormwater treatment rules to better address nutrients and other parameters.								
49	WQ1.4.3	Conduct a state-federal workshop on utilizing existing programs to target bacteria source reduction.	June-06							
50	WQ1.4.4	Develop a pilot project in each Gulf state to demonstrate the benefits of bacterial source removal through intensive monitoring.								
51	WQ1.4.5	Develop a pilot project in each state to target effort and funding to remove all direct stormwater discharges to a coastal bathing beach and demonstrate benefits through intense monitoring.								

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52	WQ2.1.1	Conduct intensive and consistent monitoring of DO in small tidal streams								
53	WQ2.1.2	Conduct additional studies in relatively unimpacted estuarine and coastal waters to assess naturally occurring low DO levels.	December-07							
54	WQ2.1.3	Expand monitoring to support 3-D modeling efforts, especially turbidity and chlorophyll probes.								
55	WQ2.1.4	Develop site-specific WQ criteria that recognize the unique natural conditions of coastal estuaries.								
56	WQ2.2.1	Implement and evaluate BMP in coastal areas for effectiveness in reducing estuarine hypoxia or cultural eutrophication.								
57	WQ3.1.1	Provide funding for Gulf state participation in the International Symposium on Harmful Algal Blooms								
58	WQ3.1.2	Support the establishment of the Gulfwide Alert Network, as proposed by HABS GCOOS.	September-08							
59	WQ3.2.1	Establish a HABS reference laboratory/training facility.								
60	WQ3.2.2	Fund training of personnel for existing HAB methods.								
61	WQ3.2.3	Refine rapid response capabilities to document red tide conditions.	September-08							
62	WQ3.4.1	Fund research into relationship between anthropogenic activities and planktonic cell counts.	September-08							
63	WQ3.4.2	Advance detection of HABS in ballast water discharged in the Gulf region.								
64	WQ3.4.3	Conduct additional research on specific dinoflagellate species to determine environmental conditions that lead to bloom conditions.	September-08							
65	WQ3.4.4	Conduct targeted research into mechanisms to disrupt or inhibit blooms.	September-08							
66	WQ3.5.1	Conduct studies to determine the public health and socioeconomic impacts of HABS in the Gulf region.	September-08							
67	WQ4.1.1	Increase the number of tissue samples from migratory fish species from the Gulf to quantify extent of mercury contamination.	December-07							
68	WQ4.1.2	Conduct a survey of fish and shellfish tissue for mercury hotspots throughout the Gulf Region.	December-07							
69	WQ4.1.3	Increase and standardize the Gulf States' analytical capacity for mercury analysis of marine fish tissue.								

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70	WQ4.2.1	Hold a regional workshop to establish a consistent Gulf wide consumption advisory for marine migratory fish species	June-05							
71	WQ4.3.1	Conduct a comprehensive assessment to determine whether chemical contaminants other than mercury are regional problems in coastal waters and sediments.	September-08							
72	WQ4.3.2	Determine a baseline on background hydrocarbon concentrations in water, sediments and aquatic organisms, especially commercial and recreational fish and shellfish.	September-08							
73	WQ4.4.1	Identify sources of mercury in the U.S. and Mexico (discharges and emissions)	September-08							
74	WQ4.4.2	Determine mass balance for mercury in the Gulf and sites and rates of Hg methylation.	September-08							
75	WQ4.4.3	Seek to understand both the sources of mercury to the Gulf and how it cycles and bioaccumulates through the food web.	September-08							
76	WQ4.4.4	Identify local sources of mercury in the Gulf region that could be mitigated.								
77	WQ5.1.1	Develop one pilot project per Gulf state to develop GIS-linked landscape/WQ modeling tool for local managers using existing data, models and tools								
78	WQ5.1.2	Develop a GIS based tool that correlates changes in land use with known water quality data.	September-08							
79	WQ5.1.3	Develop a land use/land cover analysis tool for use by coastal managers and developers to avoid damage to coastal ecosystems.	September-08							
80	WQ5.1.4	Refine land-use categories in relation to hydrologic modeling needs.	September-08							
81	WQ5.1.5	Refine integration of meteorological and land-use data.	September-08							

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82	WQ5.2.1	Provide training to appropriate local, state and federal decision makers once the pilot tools have been completed.	September-08							
83	WQ5.2.2	Work with planning agencies to implement model land use ordinances protective of coastal waters for use by local governments.								
84	WQ5.2.3	Provide local decision-makers with coastal development criteria consistent with maintaining safe shellfish harvesting waters.								
85	WQ6.1.1	Conduct annual workshops (i.e., a Gulf of Mexico Forum for Environmental Monitoring) to increase coordination of monitoring	December-07							
86	WQ6.1.2	Survey Gulf states regulatory agencies for types of data being collected and supporting metadata.								
87	WQ6.1.3	Develop and provide assistance to States in the form of data management training, software and hardware acquisition.	September-08							
88	WQ6.1.4	Develop accountability tools and accreditation standards for laboratories performing analyses included in Gulf-wide monitoring database.								
89	WQ6.2.1	Develop a parameter to pilot a web-based Gulf wide database, and determine all input and user requirements, potential host agencies and staff and funding requirements.	September-08							
90	WQ6.2.2	Establish a data management platform which will accommodate existing state water quality monitoring databases.	September-08							
91	WQ6.2.3	Exploit existing data management agencies' abilities to serve as Gulf data portals	September-08							
92	WQ6.2.4	Develop a "one stop shopping" website to integrate available regulatory and non-proprietary research data for several tiers of user groups.	September-08							
93	WQ6.2.5	Establish a standard metadata format and provide training for metadata development and maintenance at the state program level.	December-07							
94	WQ6.3.1	Conduct a state-federal workshop on bioindicators and bioassessment tools.								
95	WQ6.3.2	Use National Coastal Assessment Program to assist in the development of biological indicators.								
96	WQ6.3.3	Develop protocols for determining aquatic life use criteria for coastal waters, including tidal streams.								
<b>COASTAL RESTORATION</b>										
97	CR1.1.1	Establish a Gulf States workgroup	November-05							
98	CR1.1.2	Hold first workshop. Determine common Gulf wide issues.	November-05							
99	CR1.1.3	Share goals and major projects and programs between States. Inventory existing State Wetlands Restoration Plans								
100	CR1.1.4	Develop a prioritization framework								
101	CR1.2.1	Identify funding for research and development that will improve understanding of how changes in freshwater inflows impact coastal habitats	July-06							
102	CR1.2.2	Identify funding for status and trends studies and monitoring for use in making management decisions.	July-06							
103	CR1.2.3	Identify Federal grants and overlap of separate programs. ID case successes and failures. Develop RFPs that focus on the successes.	July-06							
104	CR1.2.4	Identify mechanisms to stakeholders that foster non-Federal funding, and identify Federal support for NGOs to develop private funding partners	July-06							
105	CR1.2.5	Identify significant and flexible incentives that support landowner conservation	July-06							

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106	CR1.2.6	Foster non-Federal funding by corporations, non-profits, and State agencies	July-06							
107	CR1.2.7	Revisit Federal State cost-sharing ratios for restoration projects and provide flexible match rates for States that are consistent and meaningful	July-06							
108	CR1.2.8	Review existing grant caps and allow for significant funding in large amounts for significant projects or longer term projects that require several years to complete	July-06							
109	CR1.2.9	Increase targeted funding that supports conservation and acquisition and maintenance	July-06							
110	CR1.2.10	Develop Project Cooperation Agreements that protect both Federal and State interests	July-06							
111	CR1.3.1	Resolve issues regarding wetland restoration efforts, such as statutes and policies that may affect wetland restoration projects	July-06							
112	CR2.1.1	Perform a gap analysis of available status and trends to determine what data are missing	January-06							
113	CR2.1.2	Develop a GIS-based inventory of completed restoration efforts, separated by proactive and compensatory restoration	January-06							
114	CR2.1.3	Provide an interstate mechanism for Gulf to exchange information and technology on compensatory restoration	January-06							
115	CR2.1.4	Determine each State's current statistics on increasing population growth (to help States determine conservation actions)	January-06							
116	CR2.2.1	Inventory and define success criteria currently used	January-06							
117	CR2.2.2	Initiate an interagency coordination team to review mitigation success so that information can be incorporated into future compensatory restoration projects with success criteria	January-06							
118	CR2.2.3	Create a restoration success "clearinghouse" which holds all the information in digital format (GIS) which will be made available to all stakeholders	January-06							
119	CR2.2.4	Provide for funding assistance for the monitoring of non-compensatory restoration projects to determine what was successful and what was not	January-06							
120	CR2.2.5	Hold an annual or bi-annual "Lessons Learned" type of Restoration techniques workshop for States to share information	January-06							
121	CR2.2.6	Provide guidance to Federal agencies to define criteria regarding benefits, habitat substitution, i.e., distinguishing net restorative benefits from habitat substitution	January-06							
122	CR2.2.7	Quantify economic and intrinsic benefits in terms of ecosystem goods and services performed by restored or conserved wetlands	January-06							
123	CR2.4.1	Engage with States on impacts of climate change on conservation and restoration projects	July-06							
124	CR2.4.2	Provide funding for a coastwide network and program of elevation benchmarks and re-leveling	July-06							
125	CR2.4.3	Undertake a natural hazard risk assessment to be used for conservation/restoration planning	July-06							
126	CR2.4.4	Expand existing MMS and Corps sediment management program to include development of a Gulf-wide sediment budget and definition of suitable sediment sources for restoration activities	July-06							
<b>HABITAT IDENTIFICATION</b>										
127	HID 1.1.1	Research/Inventory existing Gulf Habitat Types	June-06							
128	HID 1.1.2	Choose appropriate habitat definition method	June-06							
129	HID 1.2.1	Identify User Groups Habitat Data Needs	June-08							
130	HID 1.2.2	Create Virtual Spatial Data Office that will inventory all databases of habitat and existing data resource programs	June-08							
131	HID 1.2.3	Perform Gap Analysis using inventory	June-08							
132	HID 1.3.1	Acquire high resolution bathymetry and topo maps for the entire Gulf	June-06							
133	HID 1.3.2	Initiate development of high-resolution map	June-06							

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134	HID 1.3.3	Identify experts and data holders	June-06							
135	HID 1.3.4	Identify framework sets	June-06							
136	HID 1.3.5	Explore existing IOOS/ GCOOS/ SEACOOS to create an Enterprise Geospatial System for Gulf	June-06							
137	HID 1.4.1	Assess USGS's DIMS as an expanded portal	April-07							
138	HID 1.4.2	Establish a web-based portal for viewing interactive maps.	April-07							
139	HID 1.4.3	Commit to an integrated data mgmt strategy	April-07							
140	HID 1.4.4	Develop plan to archive and maintain historical data	April-07							
141	HID 1.5.1	Determine tools/analytical systems that are useful to data user.	October-07							
142	HID 1.5.2	Determine other Alliance area needs	October-07							
143	HID 2.1.1	Create a workgroup to better coordinate habitat characterization	July-07							
144	HID 2.1.2	Create a matrix of funding opportunities for data acquisition and monitoring.	July-07							
145	HID 2.1.3	Establish and strengthen partnerships with private industry and nonprofit for updates and info on mapping efforts	July-07							
146	HID 2.1.4	Assess mapping training and technical assistance needs of the Gulf States	July-07							
	<b>ENVIRONMENTAL EDUCATION</b>									
147	EE1.1.1	Develop an inventory of successful professional development programs.	November-06							
148	EE1.1.2	Analyze, evaluate, and disseminate the inventory of professional development resources.	May-07							
149	EE1.2.1	Reassign or employ a Web master to identify these priority area research experts.	May-06							
150	EE1.2.2	Work with appropriate university education faculty and/or informal educators in "bridging the gap" between their research and the relevance of their data in order to enhance the content knowledge and instructional strategies of the pre-college teachers	May-07							
151	EE1.3.1	Implement the development programs with involvement of scientists, decision-makers, and trained educational professionals...in enhancing the content for pre-college teachers	May-06							
152	EE2.1.1	Review, revise, and/or develop curricula—as hard copy or in electronic version—that can be adopted by State Boards of Education for incorporation in statewide learning objectives								
153	EE2.1.2	Develop integrated matrices of interdisciplinary environmental issues (e.g. environmental modules in reading or environmental examples in math).								
154	EE2.2.1	Encourage field-trips to local Gulf environments for "hands-on" learning.								
155	EE2.2.2	Increase capacities (personnel and fiscal resources) of local, state, and federal agencies having common ocean, watershed, and coastal processes, missions, and foci.								
156	EE2.2.3	Provide data, including real-time data, and technology for student and teacher use.								
157	EE2.3.1	Understand the seven Essential Principles and Fundamental Concepts about the functioning of the ocean.								
158	EE2.3.2	Make informed and responsible decisions regarding the ocean and its resources.								
159	EE3.1.1	Identify partners and sponsors to develop a Gulf of Mexico Alliance Environmental Career Week by to possibly coincide with coast weeks.	September-06							
160	EE4.1.1	Identify and compile a resource list of programs and other opportunities.								
161	EE4.1.2	Disseminate information to educators and the general public.								
162	EE4.2.1	Plan and host interactive annual events to exchange ideas, highlighting Gulf of Mexico themes and tying them to the culture, history and economics of the region.								
163	EE4.2.2	Recruit media coverage and invite elected officials to participate in the event.								
164	EE4.3.1	Market current programs for underrepresented and underserved students toward Gulf State populations								
165	EE4.3.2	Post information on the Alliance web site and distribute to minority serving institutes.								

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166	EE5.1.1	Hire a media specialist to develop a public awareness campaign targeting the five strategic priority areas, promoting the Gulf of Mexico Alliance and its goals, as well as developing PSAs targeted to audiences in the Gulf States.	November-06							
167	EE5.1.2	Develop a strategic communications plan with message, proposed products (PSAs) and outlets for the Gulf of Mexico Alliance.	May-07							
168	EE5.2.1	Hire a full-time Gulf of Mexico environmental education and outreach clearinghouse coordinator.	November-06							
169	EE5.2.2	Establish a network to obtain and disseminate educational information and materials with the support of USGS/NBII, for an electronic educational clearinghouse.	May-07							
170	EE5.3.1	Develop exhibits, programs for festivals, aquariums, museums, and science centers that reflect the Gulf of Mexico Alliance Education and Outreach Network's message.								
171	EE5.3.2	Promote the seven Essential Principles of Ocean Literacy (NOAA, NMEA, NGS, and COSEE, 2005). 1) the Earth has one big ocean with many features; 2) the ocean and life in the ocean shape the features of the Earth; 3) the ocean is a major influence on weather and climate; 4) the ocean makes the Earth habitable; 5) the ocean supports a great diversity of life and ecosystems; 6) the ocean and humans are inextricably interconnected; and 7) the ocean is largely unexplored.								
172	EE5.4.1	Increase public participation by developing or enhancing comprehensive citizen-based monitoring programs relative to identified areas of concern								
173	EE6.1.1	Establish Gulf of Mexico Alliance Education and Outreach Network.	May-06							
174	EE6.1.2	Develop a pilot project to help achieve collaboration (e.g. Alabama Mississippi Symposium, which will bring together scientists and coastal resources managers; State of the Coast Conference; GCOOS providing data, which can be utilized by multiple target audiences).	November-06							
175	EE6.2.1	Identify, evaluate, and integrate existing economic valuation studies for a broader Gulf wide perspective								
176	EE6.2.2	Commission economic valuation studies based on criteria established in action one								
177	EE7.1.1	Establish a federal agency Gulf of Mexico Alliance partnership fund to match private sector contributions generated by the five Gulf States working in collaboration with the Gulf of Mexico Program Business Council								
178	EE7.1.2	Create recommendations for state line item budgets for K-20, as well as public and adult continuing education for Gulf of Alliance strategic priorities and request Congress to set aside Outer Continental Shelf revenues for environmental education, working with five Gulf States and Coastal States Organization.								
179	EE7.2.1	Engage private business and industry to support funding of environmental education and training								